SUMMARY AND CONCLUSIONS

Geographically, Dhanarua Block, spreads over an area of185.55 Km^2 (Population 114971 (1981)) is a segment of South Bihar Plain. It is a paddy, wheat and lentil dominated purely agrerian area.

Physiographically, the entire area is a flat plain influencing Land Resources Utilization (LRU) and Human Resources Utilization (HRU) almost equally all over the Block. However, the influence of micro - relief has been found statistically positive though negligible.

It has been found that the rate of HRU greatly depends on the rate of LRU as agricultural land affects the utilization of manpower to the extent of 67 % , the remaining 33 % impact comes from factors other than agricultural land. This has statistically been tested and proved.

In the area agricultural land (82 %) is the only natural resource which absorbs highest proportion (67 %) of the total utilized human resources. Cultural resources absorb the remaining 33 % .

The study area falls under the regime of frequent floods and droughts which affect both the LRU and

HRU adversely. These cause sudden spurt in the availability of surplus human power. This in turn causes outmigration of agricultural labourers on a mass scale disturbing the entire socio-economic balance of the people. The measures to control both floods and droughts must be taken on priority basis. It has been suggested that the floods could be controlled through the construction of river embankments, drainage channels and check-dams, etc. The droughts situation could be mitigated by efficient, regular and adequate canal and lift irrigation. The eradication of these two problems would undoubtedly increase the intensity of both LRU and HRU in the Block.

The study area is served by one railway line, two metalled roads and a number of unmetalled links roads. They are, however, unable to facilitate economic activities throughout the year. It would be ideal if all the villages are linked to these roads. It has been felt that transport links would progressively play better role in future by facilitating the establishment of small agro-based and other cottage industries which could ultimately provide employment opportunities, thus, promoting efficient utilization of human resources.

This Block, is a cultivator dominated one as the percentage ofcultivator dominated villages is higher

than the percentage of agricultural labourer dominated villages. The percentage of cultivators to total utilized human resources in the Block is also higher than that of agricultural labourers.

The density of population is very high (669 persons per Km^2) which indicates heavy pressure of population on land. It has been observed that high density is more or less coterminous with high rate of growth.

It has been found that the birth rate and death rate vary among males and females. The birth rate among males has been found 48.10 ‰ and among females 39.18 ‰ , whereas death rate among males has been found 13.67 ‰ and among females 13.86 ‰ . This is reflected in smaller number of females in all age groups. This difference ultimately influences the utilization of male and female human resources in the Block.

The number of females per thousand males is very low (840 in 1984) which is very less in comparision to the national sex ratio (935 in 1981). This is because of differential birth and death rates in both the sexes in the area.

There has been approximately 22 % increase in population between 1971 and 1981. Though the absolute

number of workers increased, the percentage of male workers to total male population has slightly decreased while the percentage of female workers to total female population has slightly increased. This is a healthy sign of progressively better utilization of womenpower in the area. Provision of special incentives and guidance will lead the womenfolk in larger number to join the work force.

Labour force participation rate in terms of absolute figures is highest in the more active human resources of working age group 15 - 34 years, but in terms of percentage it is highest in less active human resources of working age group 35 - 59 years.

Absolute number of male labour force is highest among below matriculates but of the female labour force it is highest among the illiterate group. The lowest absolute number of labour force in both sexes is in the professional / technical level of education. But in terms of percentage to total male or female population of particular level of education, the labour force participation rate in both sexes is highest in professional/ technical level of education. Male labour force participation rate is lowest in the illiterate category and female's participation rate is lowest in the below

matriculate level of education. The highest labour force participation of professionals/technical persons is but natural as professionally/technically trained persons are in short supply.

As a whole it has been found that in the year 1984 there were 52.81 % of males and 13.20 % of females in the category of labourforce. It indicates that 47.19% males and 86.80 % females were economically inactive. These non-working people can be called actual dependents.

It has been found that 42 % among males and 13% among females were literate and educated in the year 1981 which increased to 56 % and 24 % respectively in the year 1984. Thus the percentage of literates and educated people is increasing which indicates the growing awareness of the people towards betterment of their quality which again is a healthy sign of the HRD and the area's development.

There is sharp difference in the educational attainment of the people in Cultivator Dominated (CD) villages and Agricultural Labourer Dominated (ALD) villages. It has been found that the development of human resources (in terms of educational attainment) is better in CD villages than that in ALD villages. The percentages of illiterate males and females to total male or

female population of respective category of villages were 38 % and 71 % in CD villages, and 53 % and 82 % in ALD villages respectively . Each level of educational attainment of the people in CD villages is higher than that in ALD villages.

At Block level it has been found that 44% of males and 76 % of females were undeveloped or very low level human resources in which 14 % and 13 % were male or female infants respectively . 44% of males and 23% of females were less developed or low level human resources and only 12 % of males and 1 % of females were developed or high level human resources. Thus the qualitative development (in terms of educational attainment) in each category of human resources is still very low and quite unsatisfactory particularly among female folk.

It has been found that the rate of human capital formation or human resources development in the Block is very slow. Only 65.27 % of boys and 43.09 % of girls of the school going age group of 5 - 14 years were enrolled in the primary and junior secondary (middle) schools. Rest of them were not enrolled and some of them were working in agricultural and non-agricultural economic functions.

Only 56.45 % of boys and 14.66 % of girls of

the secondary/higher secondary school age group of 14.1 - 18 years were enrolled in the secondary / higher secondary schools. This is very low percentage. Similarly, only 27.81 % boys and 0.68 % girls from the age group of 18.1 - 23 years were enrolled in degree colleges or post-graduate colleges/ universities, training institutes, etc.

As a whole, it has been found that the rate of human capital formation is higher in the CD villages than that in ALD villages. It is more pronounced in case of higher education. And at the Block level it has also been found that the number and percentage of boy and girl students decreases with the increasing age of the students which indicates the phenomenon of progressively higher drop-outs with increasing levels of education. Measures to check the incidence of drop-outs and to increase the enrolment of the students particularly of girls have been suggested.

It has been found that the stock of human resources (that has already been achieved) has been very much influenced by the caste system . In terms of gross or net achievement of HRD as proportion to total population in respective castes, Muslims and forward castes have achieved the highest position. 72.84% Muslims and 69.87 % forward caste people were

literate and educated as compared to 41.70 % among the backward castes and 22.34 % among the scheduled castes. This phenomenon is all the more pronounced in the case of higher education.

Stock of human resources has been very much influenced by the levels of per capita income also. It has been found that the percentage of illiterates (undeveloped human resources) decreases with the increasing levels of per capita income and vice-versa. The percentage of below matriculates (less developed human resources), matriculates and above, and professionals / technicals (developed human resources) increases with the increasing levels of income or vice-versa in the Block. In fact the percentage of people in each level of educational achievement (leaving aside the percentage of illiterates) is low in low level income and high in high level income . This indicates that educational achievement is low because of low income and low income is because of low educational achievement; and educational achievement is high because of high income and high income is because of high educational achievement. It has also been found that the per capita income among higher caste people is higher than among the lower caste people in the Block.

In this way human resources achievement or

human resources development is associated with castes, and per capita income or in other words, influenced by castes and per capita income. Mainly because of this the percentage of qualitative human resources (measured in terms of educational attainment) is generally higher in the higher castes and in the higher level income and lower in the lower castes and in the lower level income. It is, therefore, clear that backward castes and scheduled castes are educationally, socially, economically poor than forward castes and Muslims in the area.

Spatio-temporally, most of the villages of 1971 have been degraded and upgraded in matters of the levels of human resources utilization. Only a small number of villages showed no change during decade.

The proportion of utilized males and females has been found gradually decreasing and increasing respectively with the passage of time. In the year 1971, 50.75 % males and 10.01 % females were utilized in different economic activities and in 1981, 50.10 % males and 11.03 % females were utilized showing a slight change. But by 1984, the percentages of utilized males came down to 47.49 % and of utilized females went up to 11.33 % , a significant change indicating rapadity of change during the recent past.

Similarly the proportion of unutilized males and females has been found gradually decreasing and increasing respectively.

It is, however, clearly found that there is gradual increase in the absolute figures of utilized and unutilized male and female human resources which is mainly due to natural growth of population.

Gradual increase in females participation rate may be due to their growing competitiveness and awareness towards better earnings on one hand and gradual educational development among them on the other which promotes interests, attitude, aptitude, and other work oriented promotive qualities. This is again a good sign of HRD and HRU of females, the growing womenpower in the Block. Given proper incentive they are likely to come very fast to share equally with the menfolk.

Another notable feature is the gradual, though slow but perceptible shift in the percentage utilization of human resources with the passage of time (from 1971 to 1981 and from 1981 to 1984) from agricultural sectors to non-agricultural sectors. This shows, on the one hand, the decreasing capability of cultivated land (the main source of rural economy) to

support the increasing population of the area and, on the other hand, the possibility of development of resources (cultural) other than agricultural (natural). This seems to be a nationwide phenomenon which may be regarded as a healthy sign of HRD and HRU in the Block. Bearing this in mind suggestions have been made to lay emphasis on generation of well matched employments opportunities in the non-agricultural sectors of rural economy.

On the basis of the sample study, it has been found that 47.49 % of males and 11.33 of females were utilized human resources and 52.51% of males and 88.67% of females were unutilized.

Out of the total utilized male human resources 20% were under-utilized in which undeveloped (illiterate) were more than less developed and developed (below matriculate and matriculate and above including professional/ technical); 67 % male human resources were adequately utilized in which the proportion of less developed and developed (below matriculate and matriculate and above including professional/technical) was high; 13% male human resources were over-utilized in which approximately half were undeveloped (illiterate)and another half less developed and developed (below matriculate and matriculate and above including professional/technical,).

Similarly, out of the total utilized female human resources 27%, 70 % and 3 % were respectively

under-utilized, adequately utilized over-utilized and they were mostly undeveloped (illiterates).

Another notable finding is that out of the total utilized male or female human resources 3.84 % males and 6.38 % females were child labourers and most of them were undeveloped (illiterates). Most of the male child labourers were engaged in livestock activities such as grazing or rearing the cattle and some of them were engaged in cultivation, trade and commerce and in other services. Most of the female child labourers were engaged in cultivation as agricultural labourers and some of them were engaged in livestock farmings. The entire female child labourers were undeveloped (illiterates). Most of the child labourers of both sexes were engaged for less than the standard working period of eight hours. It should be noted that child labourers of under-working age group 5 - 14 years are not meant for utilization. On the contrary at this tender age they should be under the process of HRD.

Out of the total utilized human resources 80.39 % males and 81.92 % females were active, energetic, vigorous, skilled and healthy workers in the working age groups of 15 - 34 and 35 - 59 years. Most of the males

in each occupational category, except in livestock farming and trade and commercial activities, were adequately utilized while almost all females engaged in cultivation (as cultivators and agricultural labourers) and in other services were adequately utilized. In other activities they were mostly under utilized. Approximately 65 % males of this age group were less developed and developed (literates and educated) while more than 90 % females were undeveloped (illiterate).

Out of the total utilized human resources 15.78 % males and 11.70 % females were superannuated in over-working age group of 60 and above years. Most of the males in each occupational category, except in livestock farming, were adequately utilized while most of the females were adequately utilized in cultivation, but in other activities like livestock farming, all of them were under-utilized. Most of male workers and all female workers of this age group were undeveloped (illiterate).

The proportions of utilized male and female human resources in different economic activities differ greately. It has been found that out of the total utilized male or female human resources 43.07 % males and 3.73 % females were cultivators; 21.32 %

males and 76.06 % females agricultural labourers; 6.50 % males and 7.45 % females were livestock farmers; 3.52 % males and 9.04 % females were in household and other than household industrial activities; 0.75 % males and 1.06 % females were in construction work; 5.22 % males and 0.53 % females were engaged in trade and commerce; 1.81 % males only were engaged in transport and communication; and 17.79 % males and 2.13 % females were engaged in other services.

It is, therefore, clear that the highest proportion of males is engaged as cultivators followed by agricultural labourers while the reverse is true in the case of females. The percentage of female workers is relatively higher than that of males in livestock farmings, household industrial activities and in construction works. But in other activities the percentage of male workers is higher than that of females.

Statistical investigations have clearly shown the difference between the cultivator deominated villages and agricultural labourers dominated villages as regards HRD and HRU. The levels of HRD and HRU in cultivator dominated villages is better than that in agricultural labourer dominated villages. In other words, we can say that the utilization of undeveloped

human resources was higher in agricultural labourer dominated villages and lower in cultivator dominated villages. Similarly, the utilization of developed human resources was fairly higher in cultivator dominated villages and lower in agricultural labourer dominated villages. This result also reflects the differential levels of their socio-economic background which influences the production processes.

It has been found, of the total unutilized male or female human resources 26.03 % males and 14.96 % females were infants in the illiterate category. They are potential human resources and need conservation and development in terms of physical and mental capacity.

45.03 % males and 28.21 % females were in under-working age group of 5 - 14 years in which 31.53% males and 12.51 % females were students and 13.50% males and 15.70 % females were non-school going children while they have to have compulsory elementary education up to class eight.

21.99 % males and 29.84 % females were in the younger working age group of 15 - 34 years in which 14.66% males and 1.22 % females were students and 7.33 % males and 28.62 % females were left without work. Less than 15 % males and more than 60 % females from this

unutilized group were undeveloped (illiterate). Though constitutionally there is no provision for universal education for the persons falling under this age group, yet they are required for the development and utilization.

1.45 % males and 18.76 % females from older working age group of 35 - 59 years were unutilized of which approximately 27 % males and 85 % females were illiterate.

Similarly, 5.50 % males and 8.23 % females from over-working age group 60 and above were lying unutilized in which more than 73 % males and 97 % females remained illiterate.

As a whole, out of the total unutilized male or female human resources at all age groups more than 55 % males and less than 30 % females were educated in which most of them remain below matriculate level of education.

Out of the total unutilized males or females 9.84 % males and 2.11 % females were job seekers in which more than 55 % males and approximately 13% females were 'students' and less than 45 % males and more than 87 % females were 'others'. Most of the students were matriculate and above and were seeking jobs as

teachers, policemen and clerk, etc. Most of the males from 'others' category also were seeking the same type of jobs and most of them were matriculate and above . Most of the females from 'others' category were below matriculate . All job seeking students belonged to the younger working age group of 15 - 34 years while all other job seekers belonged to the older working age group of 35 - 59 years. Job seekers are the indicators of shortage of employments opportunities.

Looking into the provision of compulsory education for all the children of up to the age of 14 years the number of primary and middle schools has been found not adequate. It has been found that out of the total population only 16.76 % of boys and girls fall in the category of primary school going age group of 5 - 11 years in which only 9.08 % were enrolled in 123 primary schools. Non-school going children constitute 7.68 % and for them 84 primary schools have been proposed to be located in different habitations.

Similarly, out of the total population of the Block only 8.78 % boys and girls were in the age group of 11 - 14 years and they have to have compulsory middle or junior high school education. But only 4.98 % boys and girls were enrolled in the 27 existing middle schools. For 3.80 % boys and girls 36 middle

schools have been proposed.

Though there is no provision of compulsory education for the boys and girls of above 14 years, it is desirable to increase the number of secondary/ higher secondary school looking after the need for HRD. Out of the total population of the Block only 8.31 % boys and girls were in the age group of 14.1 - 18 years in which 3.36 % were enrolled in the existing 8 secondary/higher secondary schools and for the rest of 4.95 % boys and girls other four secondary / higher secondary schools have been proposed to be located in the habitations which are relatively away from the existing secondary/higher secondary schools.

The area is provided with only one degree college and another has been proposed to be opened. This would increase the number of enrolment and decrease the number of drop outs. It has been found that in the lack of such colleges most of the students drop out after passing out from the secondary/higher secondary schools.

Since health facilities play a very significant role in the HRD, the existing medical facilities have been assessed. There are two hospitals, 24 Community Health Workers (CHW), two health centres, four

Primary Health Sub-centres (PHS), three dispensaries, four Family Planning Centres (FPC), Seven Registered Private Practitioners (RPP) and one subsidised medical practitioner in the Block.

Overall, it has been observed that the distribution of these medical services centres is not equitable in the Block. To strike a balance in the provision of these services to all the villagers three - tier system of medical services has been recommended with one Community Health Centre (CHC), four Primary Health Centre (PHC) and twenty Primary Health Sub-centre (PHS) spread over the area.

It has been found that 24 % among males and 49 % among females of the working age groups of 15-34 and 35 - 59 years were unutilized. They were the actual dependents on the working human resources. There is a tremendous reserve particularly of womenpower, who are either engaged in domestic chores or are completely unemployed spending their time gossipping in their houses.

Suggestions have been made to promote or generate different types of economic activities in primary, secondary and tertiary sectors of rural economy which would ultimately lead to full employment for

unutilized and under-utilized including new entrants into working force in the area.

It has been found that agricultural sector has great potentiality to provide additional employments for unutilized and under-utilized including new entrants into working force through the introduction of adequate, timely and regular irrigation facilities, through the introduction of modern technologies such as intensive farming, high yielding varieties of seeds, changing cropping pattern and through controlling floods and droughts in the area. Another possibilities of generating additional employments have been sought in poultry farming, livestock farming, dairy farming, fishing, etc.

Suggestions have been made to generate additional employments in secondary sector which would include household and other than household industries. These are carpentery, pottery, blacksmithy, rice husking flour milling, oil crushing, creamery, Khoya making, repairing, tailoring, basket weaving, tile or brick making, etc. These are the existing household industries and suggestions have been made for their further promotion through subsidy, on-the-job training , modernisation and marketing. Suggestions have also been made to establish cottage industries, handicrafts, dairy

farm industry, backery industry, warehousing, cold storage, automobile, repairing and servicing, foot loose and electronic industries etc. Suggestions have been made to generate employment opportunities in construction works also which may be through the construction and maintenance of embankments, field channels, roads, school building, medical health centres, etc.

It has been observed that commercial activities have great potentiality to absorb additional human resources of the area. The existing commercial activities in the Block are - milk selling and selling milk products (Khoya, cream, etc.); Kirana or grocery shops; selling vegetables, etc.; fair price shops, coarse textile trade; selling or purchasing live goats, selling toddy, etc.

It has been found that there are seven villages namely Oiara Sonmai, Pabhera, Chistipur, Nataul, Panditganj and Nadwan in which markets are held twice a week and some essential goods are marketed. It has also been observed that these markets do not fulfil the needs of the villagers and consequently they have to go to the nearby towns to make purchases of some essential goods. Larger demands and shorter supply requires the extension of the existing markets which would invite additional

human resources.

A good deal of employment prospects have been sought particularly for developed human resources in the extension of social services and amenities in the form of better facilities for education, health, improved housing and sanitation, etc. in the Block.

84 Primary schools, 36 middle schools, 4 secondary/higher secondary schools, and one degree college have been proposed to be located in the area which would demand a large number of teaching and non-teaching members of staff. Similarly 20 PHS, one PHC and 1 CHC have been proposed to be located in different villages for imparting better and smooth medical services to all people inhabiting the area. These centres would absorb a portion of unutilized, under-utilized and new entrants into working force.

In this way educational and medical facilities would play very significant role in the HRD on the one hand and the HRU on the other.

Thus it is hoped that once the proposed economic and social activities are developed and brought into operation the problem of the development and utilization of human resources would be solved.